CLAIMS

What is claimed is:

1.   A method for generating a panoramic image, comprising the steps of:

capturing a series of image frames each of a portion of a panoramic image scene;

combining the image frames into a panoramic image while the series of image frames is being obtained.

2.   The method of claim 1, wherein the step of capturing comprises the steps of:

capturing a first image frame having a resolution that corresponds to a resolution of the panoramic image;

capturing a second image frame having a resolution that corresponds to the resolution of the panoramic image if a relative motion between the first and second image frames is detected.

3.   The method of claim 2, further comprising the step of determining the relative motion by capturing a series of image frames having a resolution that is lower than the resolution of the panoramic image.

4.   The method of claim 3, wherein the lower resolution is selected to maintain an overlap in the image frames having the lower resolution in response to the relative motion.

5.   The method of claim 2, further comprising the

step of detecting the relative motion using a motion sensor.

6.   The method of claim 2, wherein the step of combining comprises the step of combining the first and the second image frames in response to the relative motion.

7.   The method of claim 5, further comprising the step of discarding an overlapping portion of one of the first and second image frames from the memory.

8.   The method of claim 1, wherein the step of capturing comprises the step of capturing a series of image frames each of a strip of the panoramic image scene.

9.   The method of claim 8, wherein the strips have a set of dimensions that are selected to maintain an overlap in the strips.

10.   The method of claim 9, further comprising the step of adjusting the dimensions to maintain the overlap.

11.   The method of claim 1, further comprising the step of providing a visual feedback to a user that indicates the progress of the panoramic image.

12.   The method of claim 11, wherein the step of providing a visual feedback comprises the step of providing a depiction of missing areas of the panoramic image.

Attorney Docket No.: 200300270

13. The method of claim 11, wherein the step of providing a visual feedback comprises the step of providing a depiction of areas of the panoramic image
5 that need to be re-sampled.

14. The method of claim 1, further comprising the step of capturing a set of image frames that define a set of boundaries of the panoramic image.
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15. The method of claim 1, further comprising the steps of:
   performing a zoom in on an object of interest in the panoramic image;
15   capturing an image frame that provides a sample of the object of interest such that the image frame of the object of interest has a higher resolution than the image frames obtained from a remainder of the panoramic image;
20   recording a set of metadata pertaining to the zoom;
   combining the image frame of the object of interest with the remainder of the panoramic image in response to the metadata.
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16. A camera, comprising:
   image sensor for capturing a series of image frames each of a portion of a panoramic image scene;
   processor for combining the image frames into a
30 panoramic image while the series of image frames is being obtained.

17. The camera of claim 16, wherein the image frames

Attorney Docket No.: 200300270

include one or more image frames having a resolution that corresponds to a resolution of the panoramic image and one or more image frames having a resolution that is lower than the resolution of the

5 panoramic image.

18. The camera of claim 16, wherein the processor determines a relative motion between the image frames.

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19. The camera of claim 16, further comprising a motion sensor.

20. The camera of claim 16, further comprising a
15 memory for storing portions of the image frames for the panoramic image.

21. The camera of claim 16, wherein the image frames each comprise a strip of the panoramic image scene.

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22. The camera of claim 16, further comprising means for providing a visual feedback to a user that indicates the progress of the panoramic image.

25 23. The camera of claim 16, further comprising means for performing a zoom in on an object of interest in the panoramic image such that the image sensor captures an image frame of the object of interest having a higher resolution than the image frames
30 obtained from a remainder of the panoramic image and the processor records a set of metadata pertaining to the zoom.

Attorney Docket No.: 200300270

24. The camera of claim 23, wherein the processor combines the image frame of the object of interest with the remainder of the panoramic image in response to the metadata.

Attorney Docket No.: 200300270